

WHAT IS CLAIMED IS:

1. A microscope comprising
  - a microscope stand;
  - 5 • a focusing device arranged inside the microscope stand
  - at least one operating element at a first and a second end of the focusing device, each of which protrudes through a side wall of the microscope stand;
  - a microscope stage moveably mounted to the microscope stand;
  - at least one objective which defines in its working position an optical axis, and said
  - 10 at least one operating element of the focusing device effects a relative movement between the microscope stage and the objective;
  - an elongated slot provided at each side wall of the microscope stand which allows a change of the position of said at least one operating element in a horizontal and vertical direction; and
  - 15 • an adjustable stop mechanism to limit the relative movement of the microscope stage in the direction of the optical axis.
2. The microscope as defined in Claim 1, wherein the focusing device is provided with a pivot axis around which the focusing device and consequently said at least one operating element is pivotable so that the position of the operating element is adjustable
- 20 with respect to a side wall of the microscope stand.
3. The microscope as defined in Claim 1, wherein the focusing device has a first axle defining the first and the second end on both of which at least one operating element is mounted and a second axle, which is parallel to the first axle.
4. The microscope as defined in Claim 3, wherein the first axle carries a first gear wheel,
- 25 the second axle carries a gear wheel arrangement and a rocker, and the rotational movement of the first axle is transferred by the first gear wheel to the gear wheel arrangement on the second axle.
5. The microscope as defined in Claim 4, wherein the gear wheel arrangement comprises a first gear wheel and a second gear wheel arranged coaxially and the first gear wheel
- 30 has a larger diameter than the second gear wheel.
6. The microscope as defined in Claim 5, wherein the rotational movement of the second gear wheel of the gear wheel arrangement is transferred to a gear rack which moves the microscope stage in the direction of the optical axis of an objective.

7. The microscope as defined in Claim 1, wherein the adjustable stop mechanism comprises a rod, a spring for biasing the rod and a screw for adjusting and fixing a position of the rod.
- 5 8. The microscope as defined in Claim 7, wherein a dividing wall element is formed inside the microscope stand and the dividing wall element provides a guide for the screw, the spring and the rod.
9. The microscope as defined in Claim 4, wherein a rocker is provided on the second axle which is operated by a pin which is mounted at the periphery of the first gear wheel of the gear wheel arrangement.
- 10 10. The microscope as defined in Claim 4, wherein the rocker is a one piece element which comprises a first arm and a second arm and the second axle is common for both arms.
11. The microscope as defined in Claim 10, wherein the first arm of rocker is a massive block with a rectangular cross section.
12. The microscope as defined in Claim 10, wherein the second arm of rocker defines a free end which has on opposing sides an S-shaped contour which cooperates with the pin mounted at the periphery of the first gear wheel of the gear wheel arrangement.
- 15 13. The microscope as defined in Claim 11, wherein the first arm of rocker engages with a surface of the rod and thereby limits the relative movement stage in the direction of the optical axis.
- 20 14. A focusing device for a microscope comprising:
- at least one operating element attached to a first axle of the focusing device for effecting movement of a microscope stage along an optical axis of the microscope; and,
  - an adjustable stop mechanism cooperating with the focusing device to limit the movement of the microscope stage in the direction of the optical axis.
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15. The focusing device as defined in Claim 14, wherein a gear wheel is formed on the first axle of the focusing device and a gear wheel arrangement is provided on a second axle.
- 30 16. The focusing device as defined in Claim 15, wherein the gear wheel arrangement comprises a first gear wheel with a larger diameter than a second gear wheel the rotation of the gear wheel is transferred to the first gear wheel of the gear wheel arrangement and the second gear wheel of the gear wheel arrangement transfers its

rotational movement to a gear rack which moves the microscope stage in the direction of the optical axis.

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17. The focusing device as defined in Claim 14, wherein the adjustable stop mechanism comprises a rod, a spring for biasing the rod and a screw for adjusting and fixing a position of the rod.
18. The focusing device as defined in Claim 17 wherein the adjustable stop mechanism is arranged inside a microscope stand, a dividing wall element is formed inside said microscope stand and the dividing wall element provides a guide for the screw, the spring and the rod.
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19. The focusing device as defined in Claim 15 wherein a rocker is provided on the second axle and is operable by a pin which is mounted at the periphery of the first gear wheel of the gear wheel arrangement.
20. The focusing device as defined in Claim 19 wherein the rocker is arranged rotatable on the second axle of the focusing device.
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21. The focusing device as defined in Claim 15 wherein the rocker has a first and a second arm and the second arm cooperates with the pin and the first arm cooperates with the rod of the adjustable stop mechanism.
22. The focusing device as defined in Claim 19 wherein the first arm of rocker is a massive block with a rectangular cross section.
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23. The focusing device as defined in Claim 19 wherein the second arm of rocker defines a free end which has on opposing sides an S-shaped contour which cooperates with the pin mounted at the periphery of the first gear wheel of the gear wheel arrangement.
24. The focusing device as defined in Claim 22 wherein the first arm of rocker engages with a surface of the rod and thereby limits the relative movement stage in the direction of the optical axis and the adjustment screw at the microscope stand sets the level of the adjustment stop which is defined by the surface of the rod.
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